

18.—TWO BURMESE SPIDERS WHICH MIMIC SCORPIONS.

(With 2 plates).

The area of country close to Tongup, Burma is very rich in spiders. During a period of three weeks in that area I collected over seventy different species including the following two scorpion mimics.

These are apparently allied to the Genus *Araneus*, but as I have as yet been unable to identify them the following is an ecological description only. In these numbers the tip of the abdomen is elongated to form a scorpion-like 'sting'. The first two pairs of legs are larger than the hind two pairs, the femur being relatively large. Just as the mimicry of the ant-mimic genera *Myrmarachne* and *Amyclaea* is partially dependent upon the antennae-like waving of the first pair of legs, and by the ant-like movement of the spider, so scorpion-mimicry of these two species is dependent upon the aggressive attitude adopted by the spider when it falls to the ground on being disturbed in its web. Most members of the genus *Araneus* 'sham death' when they fall to the ground, but these two species curl the tip of the abdomen forward over the cephalothorax and hold the first two legs on each side close together, and straight forward, appearing very like the pincers of a scorpion.

Both these spiders spin simple orb webs about eight inches in diameter, which are found under shrubs and trees in a vertical position.

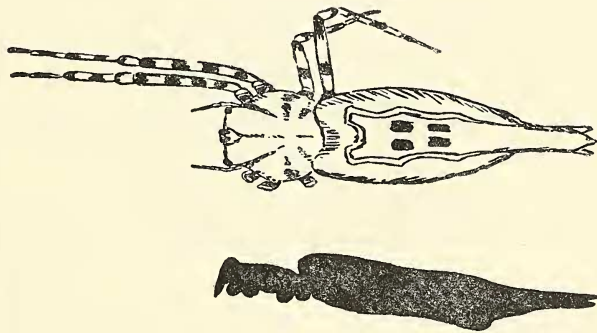
The web of the yellow species is found amongst small shrubs with a yellow flower. When I saw this spider I thought that it was a dried petal hanging in a web. The spider rests just above the centre of its web with its abdomen flat against the webbing, quite un-scorpion like in this position. Dried cast skins and petals are also found in the web providing what Hingston terms 'Decoy Devise' protection. When the web is touched the spider drops to the ground and adopts the scorpion mimic attitude described above. This will give protection due to the apparent rapid change in form just as a rapid change in colour gives 'Flash colouration' protection.

The red species is found beneath trees with very finely divided compound leaves, the dried leaflets of which are reddish brown in colour. These dried leaflets are found in the web as 'decoys'. The spider rests in the centre of the web, the flattened tail being apparently the stem of a leaflet. When the web is touched the spider drops as the yellow species does.

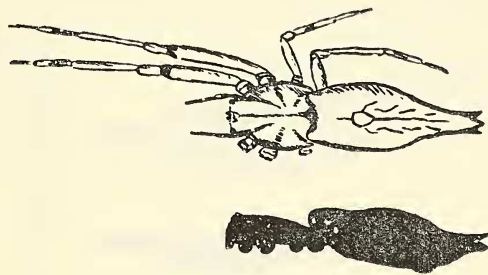
In this area I found many species of *Araneus*, very dried-leaf like in form when they are seen hanging in the web, or more usually resting at the side, but the above two are the only mimetic forms which I have found in Burma.

The mimetic protection obtained by these spiders is due entirely to their scorpion-like form and attitude when on the ground. They do not receive protection because they are found

SPIDER-SCORPION MIMICS



RED LEAF-LIKE SPIDER



YELLOW PETAL-LIKE SPIDER

1 CM. SAME SCALE